

Cephalopods

The cephalopods, commonly known as the octopuses, squid and cuttlefish, along with the vampire squid and Nautilus, are a well-defined class of Mollusca (Boyle & Rodhouse, 2005). As such, they share a basic body organization with the bivalves, snails and chitons, and retain some of their most recognizable characters



such as the ability to secrete a shell (Boyle & Rodhouse, 2005). The North Sea contains 4 Family of Cephalopods, which are: *Sepiidae*, *Loliginidae*, *Ommastrephidae*, and *Octopodidae* (Oesterwind et al., 2010). Together they contain 12 different species, such as: Common cuttlefish (*Sepia officinalis*), European squid (*Loligo vulgaris*), European flying squid (*Todarodes sagittatus*), and Curled octopus (*Eledone cirrhosa*) (Oesterwind et al., 2010). This study only found two species that occur in the Wadden Sea, being the European squid (*Loligo vulgaris*) and Veined squid (*Loligo forbesii*) (Jak & Slijberman, 2023). Most cephalopod species migrate from different areas during the winter and return during the summer (Lishchenko et al., 2020). This study found no evidence of invasive cephalopod species in the North Sea.

History/ Population trends

Before the mid-twentieth century, rarely any commercial fishing occurred on Cephalopod species. Afterwards, annual cephalopod landings increased globally from about 500,000 tons to more than 4 million tons in 2007 (Oesterwind et al., 2010). With growing stock sizes, marine food chains will be affected with implications on the recruitment of commercially important fish species (Oesterwind et al., 2010). Oesterwind et al., denoted that if such a situation occurs in the North Sea, where cephalopods have played a minor role in terms of fisheries so far, improved assessment and management of stocks will be required to ensure an ecosystem-compatible utilization of cephalopod resources (2010).

Miscellaneous

- The central brain of Cephalopods is Torus shaped ('donut' shaped) (Boyle & Rodhouse, 2005). This allows them to have their digestive tracks be placed through the hole, which causes the iconic shape of most Cephalopod species (Boyle & Rodhouse, 2005).
- One of the easiest distinctions between Octopi and Squid is that Octopi have 8 tentacles and Squid have 10 (Boyle & Rodhouse, 2005).

Diet

- Crustaceans (Boyle & Rodhouse, 2005).
- Zooplankton (Boyle & Rodhouse, 2005).
- Small fish (Boyle & Rodhouse, 2005).
- Other detritivores (Boyle & Rodhouse, 2005).

Sources

Boyle, P., & Rodhouse, P. (2005). *Cephalopods*. Google Books. Retrieved December 19, 2024, from

https://books.google.nl/books?hl=nl&lr=&id=k3aBFSVUXqEC&oi=fnd&pg=PR7&dq=Cephalopods+AND+definition&ots=2BpEpkn6Yx&sig=hySm1W6-4Clid1eYIxSvfGRsYI4&redir_esc=y#v=onepage&q=Cephalopods%20AND%20definition&f=false

Jak, R. G., & Slijkerman, D. M. (2023). *Short review on zooplankton in the Dutch Wadden Sea : considerations for zooplankton monitoring*. <https://doi.org/10.18174/586428>

Lishchenko, F., Perales-Raya, C., Barrett, C., Oesterwind, D., Power, A., Larivain, A., Laptikhovsky, V., Karatza, A., Badouvas, N., Lishchenko, A., & Pierce, G. (2020). A review of recent studies on the life history and ecology of European cephalopods with emphasis on species with the greatest commercial fishery and culture potential. *Fisheries Research*, 236, 105847. <https://doi.org/10.1016/j.fishres.2020.105847>

Oesterwind, D., Ter Hofstede, R., Harley, B., Brendelberger, H., & Piatkowski, U. (2010). Biology and meso-scale distribution patterns of North Sea cephalopods. *Fisheries Research*, 106(2), 141–150. <https://doi.org/10.1016/j.fishres.2010.06.003>